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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/558,770	04/26/2000	Martin W. Allen	SP00-118	1532
7590 02/18/2004				
Robert L Carlson Corning Incorporated SP TI 03 I Corning, NY 14830				
EXAMINER HOFFMANN, JOHN M				
ART UNIT		PAPER NUMBER		
1731				

DATE MAILED: 02/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/558,770	Applicant(s) ALLEN ET AL.	
	Examiner John Hoffmann	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-97 is/are pending in the application.
- 4a) Of the above claim(s) 7-11, 15-17 and 24-97 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-14 and 18-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>26 July 2000</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant's election of Group III, species A2, B2, C2, D1, E1, F2, G1 and H3 in Paper No. dated 4 Aug 2003 and 2/26/03 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

A general allegation of an improper requirement does not constitute "distinctly and specifically" pointing out the errors. Claims 7-11, 15-17 and 24-97 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. dated 4 Aug 2003 and 2/26/03.

Information Disclosure Statement

The information disclosure statement filed 26 July 2000 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Although there were English-language documents with numbers that correspond to references AM and AP - there was no copy of the actual patents.

The information disclosure statement filed 26 July 2000 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Examiner could find no statement of the relevance of reference AL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6, 8-14 and 18-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 6: there is no antecedent basis for "the void". It is noted that Applicant intends "hole" to be of a scope that does not necessarily have void. As per instant claims 6-8, the hole may be a plugged hole. Thus the hole can be such that there is no empty space/void.

The terms such as "hole", centerline hole", and "void" are (in the present application) indefinite as to their meaning. First of all, such things are nothingness and

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do not require any structure. Second, the present application does not set forth what is meant by the terms - except by way of example. Third, Examiner could find no definition for "hole" which permits a scope which has no entrance - such as Applicant's figure 7.

Claim 2, line 3, there is no antecedent basis for "the outside diameter of glass".

The term "single mode optical fiber intermediate glass object" is indefinite as to its meaning. (claim 3). Examiner could find no definition for this term.

Claims 3-5: there is no antecedent basis for "the fiber", or "the resultant optical fiber": the claims do not require the actual creation of a fiber.

Claim 4: it is unclear if there is suppose to be "hole" after "centerline".

Claim 1, last line: there is no prior mention of an "annular void" and this makes it unclear if there must be one.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi 6076376 alone or in view of Glodis 6105396.

It is noted that there is no order to the claimed steps.

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Col. 8, lines 48-55 of Onishi discloses that the preform is made by MCVD or the rod-in-tube method. Each of these methods requires the provision of a glass object having the centerline hole. The hole is removed by heating in both the MCVD and the RIT method: it occurs either prior to or during drawing. The diameter is reduced by at least $1/3$ during the drawing (see figure 6).

There is no indication of a pressure in the void. IT is noted that 700 torr is "about 760 Torr": the same applies to 725 torr and 750 torr. Atmospheric pressure is 760 torr: thus atmospheric pressure is "greater than or equal to about 760 Torr". There is no indication that MCVD or RIT process has the bore exposed to atmospheric pressure. It would have been obvious to perform the MCVD or RIT process at a pressure of at least atmospheric, so that one does not have to bother with a vacuum system.

Glodis is cited as teaching to keep a pressure in an MCVD tube to prevent a change in diameter (col. 5, lines 45-47). It would have been obvious to use a pressure at least equal to atmospheric pressure (in the Onishi MCVD process), to prevent atmospheric pressure from collapsing the tube. One of ordinary skill understands that there has to be a balance of pressures to prevent the tube from shrinking.

Claim 3: it is deemed that both pressures (i.e. externally and internally) applied are "sufficient" to meet the stated condition. Figure 12 of Onishi clearly shows that that fiber has the low dispersion values for at least some locations. Also, other locations have unspun lengths: the spinning oscillates between positive locations and negative locations. And in-between those two lengths, there are locations where the spin is zero.

Alternatively: the Onishi fiber is always in a spun state - it is never in an "unspun" state. The claim limitations only pertains unspun fibers - there is no dispersion requirement which must be met for spun fibers. In other words, the Office is interpreting the claim to be: "if the fiber is unspun, then...." The claim does not limit spun fibers. The claims does not require the creation of an unspun fiber.

Claims 4-5: Onishi figure 12 show dispersions less than the 0.05 value.

Claims 1-2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkey 5152818.

Figures 9-10 and 14 of Berkey show the invention. Figure 10: each of feature 80 corresponds to a hole. Every cylindrical hole has a centerline: therefore each cylindrical hole has a centerline. A centerline (by Examiner's dictionary) is " a real or imaginary line that is equidistant from the surface or sides of something. " Figure 4 represent the heating to reduce the outside diameter. It would have been obvious to have the holes close uniformly and symmetrically along the centerline axis, so that the fiber will have the same cross section at every location along its length. It is noted the claims do not limit what sort of symmetry must exist - and if it is uniform with respect to time, length, diameter or what.

Berkey does not actually mention the pressure. The present claim requires a pressure "greater than or equal to about 760 Torr". It is deemed that 700 Torr is about 760 torr, and that 740 is greater than 700. Atmospheric is at least 740 torr. From col. 7, lines 61-65: it is clear that no vacuum is necessary. It would have been obvious to use

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atmospheric pressure or higher because that is the only other choice when one does not have a vacuum. The claim does not limit when there must be the pressure.

Claim 2: it would have been obvious to have the hole completely closed because figure 10 shows no opening, and there is no reason to have an opening in the final fiber.

Claim 6: figure 14 shows that each centerline hole is plugged with 70: see col. 8, line 49.

Claims 1-2, 12-14, and 18-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berkey 5917109.

Berkey clearly has a step of providing the glass object, the heating to reduce the diameter and closing of the hole. Berkey does not disclose the claimed pressure, but discloses use of a gas in the bore. It would have been obvious to use pressures near atmospheric pressure, because no pressure is indicated and because such would not require any extra high or low pressure apparatuses or techniques. See above for as how the claim limitations are interpreted.

As to claim 2, it would have been obvious to have the bore close completely, because any openings may interfere with the optical signal and/or strength of the fiber.

Claims 12-13: see col. 4, line 46 to col. 5, line 32.

Claim 18: "for making a multimode fiber" is an intended use and imparts no manipulative difference to the claim

Claims 14, 19-21 are met as per col. 5, lines 51-52.

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Claim 22: see figure 6: it would have been obvious to maintain the circular symmetry shown in figure 6, because there is no reason to change it, and because if it changes, it would not result in the profile of figures 7 or 8.

Claim 23: it would have been obvious to have the fibers as symmetrical as possible, so that the fibers possess the desired profile of figure 7 or 8 at every position.

Conclusion

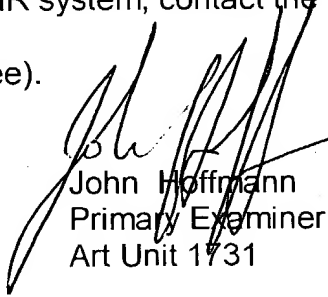
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gansike, , Turpin, Shiraishi, and Keck are cited as showing other reference that could be used to show that the present claims are obvious.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


John Hoffmann
Primary Examiner
Art Unit 1731

2-09-04

jmh